

REMARKS/ARGUMENTS

1. Rejection of claims 1-5, 8-10, 16, and 18-20 under 35 U.S.C. 112, second paragraph:

5 Claims 1-5, 8-10, 16, and 18-20 are rejected under 35 U.S.C. 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Response:

10 Claims 1-5, 10, 16, and 18-20 have been cancelled, and are no longer in need of consideration.

 Claim 8 has been amended to clarify how the bias circuit is connected how it operates. The applicant believes that there is no longer any ambiguity as to the operation of the bias circuit. As a result, reconsideration of claims 8-9 is respectfully requested.

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2. Rejection of claims 1, 16, 18, and 20 under 35 U.S.C. 102(e):

 Claims 1, 16, 18, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Tanaka (US 6,956,800).

20 **Response:**

 Claims 1, 16, 18, and 20 have been cancelled, and are no longer in need of consideration.

3. Rejection of claims 16, 18, and 20 under 35 U.S.C. 102(e):

25 Claims 16, 18, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Mashimo et al. (US 2003/0081531).

Response:

Claims 16, 18, and 20 have been cancelled, and are no longer in need of consideration.

5 4. Discussion of claims 8 and 9 and new claims 21-26 with respect to cited prior art:

Claim 8 has been amended to specify that the bias circuit receives the slice signal from the low-pass filter, raises the voltage level to produce a biased sliced signal, and outputs the biased sliced signal to a comparator. In other words, the bias circuit is located between the low-pass filter and the comparator. New claims 21, 23, and 25 are similar to claim 8, but instead claim different locations of the bias circuit. In claim 21, the bias circuit is located before the limiter for biasing the spiked signal before it is passed to the limiter. In claim 23, the bias circuit is located between the limiter and the peak hold circuit. In claim 25, the bias circuit is located between the peak hold circuit and the low-pass filter. These different variations are all fully supported in the original claims 2, 5, 7, 10, 13, and 15, and no new matter is added through the introduction of new claims 21-26.

Each of the claims 8, 21, 23, and 25 recite the use of both a bias circuit for raising a voltage level of a signal as well as a limiter for limiting the spike signal (or biased spike signal) to be within a voltage range. In addition, claims 9, 22, 24, and 26 each state that "the voltage range has an upper limit less than the maximum voltage of the spike signal".

In contrast, Tanaka does not teach the use of both a bias circuit for raising a voltage of the spike signal as well as a limiter for limiting the spike signal to be within a voltage range. Tanaka only teaches in Figure 7 and in column 9, lines 1-12 that the radial push-pull signal S_{rpp} is amplified to have the same maximum amplitude as the reference voltage V_{ref} . Thus, Tanaka teaches **either increasing** the

amplitude of the radial push-pull signal Srpp **or decreasing** the amplitude of the radial push-pull signal Srpp, **but not both increasing and decreasing**.

5 For this reason, Tanaka does not teach the claimed limitations recited in claims 8, 21, 23, and 25 of using a bias circuit for raising a voltage level of a spike signal as well as a limiter for limiting the spike signal (or biased spike signal) to be within a voltage range. Furthermore, Tanaka also does not teach the limitations recited in claims 9, 22, 24, and 26 that the voltage range created by the limiter has an upper limit less than the maximum voltage of the spike signal.

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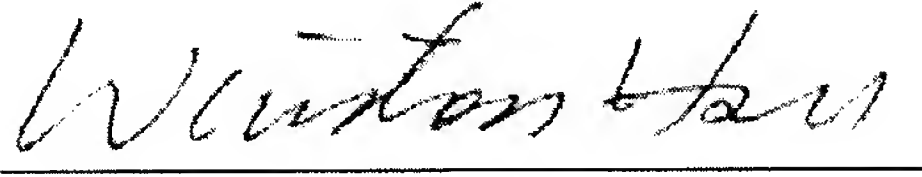
Considering the Mashimo reference, Mashimo also does not teach the use of both a bias circuit for raising a voltage level of a spike signal as well as a limiter for limiting the spike signal (or biased spike signal) to be within a voltage range. Therefore, the applicant respectfully submits that currently amended claims 8 and 9
15 and new claims 21-26 are allowable over the cited prior art. Consideration of the claims is respectfully requested.

In view of the above amendments to the claims and the arguments in favor of patentability, the applicant respectfully requests that a timely Notice of Allowance be
20 issued in this case.

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Sincerely yours,



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- 10 Note: Please leave a message in my voice mail if you need to talk to me. (The time in D.C. is 12 hours behind the Taiwan time, i.e. 9 AM in D.C. = 9 PM in Taiwan.)